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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
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Diamond State Salvage Site Wilmington, Delaware

Diamond State Salvage Site Cleanup Begins With Joint Federal, State, and City Efforts

The United States Environmental Protection Agency (EPA), the Delaware Department of Natural Resources and Environmental Control (DNREC) and the City of Wilmington (City) are working together to cleanup the Diamond State Salvage Site. Federal, State and City officials are developing joint cleanup and public outreach efforts through a Unified Incident Command.

The Diamond State Salvage Company operated a salvage (scrap) yard at the Site until 1992. The site is contaminated with lead, PCBs and other hazardous substances historically found in salvage materials. The Diamond State Salvage Site occupies a 4.2-acre property adjacent to the Pine Street Bridge in Wilmington, Delaware. The site is across the Brandywine River from the Frederick Douglass Stubbs Elementary School and the Howard Career Center. The Diamond State Salvage Company operated the facility from 1949 to 1992 as a full-scale salvage operation, removing useable metals from automobiles, appliances and batteries. The metals were then shipped to several scrap metal buyers. Some materials, such as rubber and plastics, were left on site, while others were taken to a local landfill.

Initial Actions

Cleanup of the Diamond State Salvage Site will involve several steps over the next 18 months. The first phase of the cleanup, which includes installing a fence around the site, preventing soil erosion and clearing the site of remaining scrap, buildings and debris and temporarily stabilizing the site, is well underway. Through the Unified Command, Wilmington officials closed 14th Street to limit access to contaminated areas of the site; to stop illegal dumping and to provide a location for support activities, including a construction trailer, a site command post and a community relations office.

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Proposed Final Clean-up Plan

Once the first phase is complete, EPA proposes to prevent future health and environmental risks, eliminate future migration of contamination from the site and provide permanent cleanup with the following steps:

- Removing contaminated river sediments and streambank materials
- Capping and containing all contaminated materials with impermeable cover and below-ground walls
- Covering the cap with top soil or other suitable materials to support vegetative growth
- Restricting future site use through appropriate Superfund property lien and deed restrictions
- Limiting future site disturbance activities

After completing the cleanup, the site will be available for limited reuse, which may include park and recreational uses with developmental restrictions. The site is currently owned by the Diamond State Salvage Company. Pursuant to Federal law, EPA will place a lien and a deed restriction on the property to assure that the cap and containment system is not disturbed. This lien would not prevent the City of Wilmington from acquiring the property for public use.

It is estimated that the above proposal will cost approximately \$5.5 million dollars. Alternative cleanup options which provide similar levels of public health protection, such as excavation and off-site disposal and soil treatment, are prohibitively expensive.

What Other Options Are Available?

EPA reviewed other cleanup options. Other cleanup options which provided equal health protection cost nearly five times as much. Excavation and off-site disposal of all site contamination is estimated to cost \$23 million. In situ vitrification is the only soil treatment which is certain to be effective for treatment of both lead and PCBs. In situ vitrification involves subjecting site soils to tremendous electric current which burns all organic matter and turns the remaining material to a non-toxic glass-like substance. In situ vitrification would cost an estimated \$27 million. EPA must select the most cost-effective option among the sufficiently safe alternatives. The cap and containment system is safe and cost-effective. Therefore, EPA proposes to implement the cap and containment system as the permanent remedy. If approved, funding for the cap and containment system will be provided by the EPA with Superfund Trust Fund monies, pursuant to the Comprehensive Environmental Response Compensation and Liability Act (CERCLA).

The City of Wilmington is exploring other options, if any, that may be available through other private or public sources, including funding the difference between EPA's proposed option and another option. EPA, the City and DNREC agree that evaluation of any such options should not delay site cleanup. The City has until October 1, 1998 to make such a proposal without causing any significant delay either to the current proposed plan or another plan. Until then, EPA will continue to pursue the proposed plan, including completing the initial steps, seeking funding approval for \$5.5 million, developing construction designs for public review and conducting important community outreach. The activities planned before October 1 are necessary no matter what option is ultimately undertaken.

Health Issues:

Potential Health Concerns

At EPA's request, the U.S. Department of Health and Human Services' Agency for Toxic Substances and Disease Registry (ATSDR) evaluated the site. ATSDR determined that direct contact with soils on site may potentially pose a risk to unprotected persons frequently exposed to site soils and recommended restricting site access. ATSDR also recommended taking steps to assure that off-site migration is controlled as well.

It is very important to understand that EPA, ATSDR, DNREC and the Delaware Department of Health and Social Services (DHSS) do not believe that the potential threats identified for the site have actually impacted the health of members of the surrounding community.

The actual threat posed by PCBs is a small statistical incremental increased cancer risk based upon a 70-year, lifetime exposure to contamination on the Site. In other words, the risk is to someone who is exposed to contaminated site soils on a daily basis over their lifetime. Lead, the other main contaminant of concern, is a toxic metal. EPA does not believe that lead from the site has resulted in actual harm to children or others in the community. Lead is everywhere and everyone is exposed to lead in their daily lives. Children 6 years of age and under are especially susceptible to its effects. When children are exposed to and ingest (eat) high concentrations of lead, such as is found in contaminated site soils, they may experience subtle cognitive effects such as slower learning abilities. However, such effects would only result from frequent, direct exposure to and ingestion of contaminated site soil by children 6 and under playing on the Site on a daily or regular basis over an extended period of time. A casual exposure, such as walking by the site on Church or 14th Streets or occasionally walking across the site, would not pose a risk to children or others.

Even though the potential risks posed by the site are remote, EPA is concerned about such potential threats. On May 19, 1998, EPA issued a fact sheet informing the press and public that the Site is contaminated with lead and PCBs and that such hazardous substances pose certain health risks. EPA proposes to expend \$5.5 million to assure that such risks never happen.

Lead & PCBs

The Diamond State Salvage Site is an abandoned scrap metal recycling facility which operated from the 1940s until 1992. From the 1940s until the late 1970s neither the Federal government nor State governments regulated hazardous materials like lead and polychlorinated biphenyls (PCBs). Before lead and PCBs were regulated by EPA and the States, they sometimes were found in recycling operations. Over its years of operation, the Diamond State Salvage Site became extensively contaminated with these hazardous substances. PCBs were widely used by industry and were even used in commercial and consumer products. They are still in use in many older electrical transformers. Lead is naturally occurring and is found in low concentrations in all soil. Lead was historically used in many industrial, commercial and home products, like lead-based paint. Lead is still used in many products like car batteries. PCBs are no longer manufactured and lead batteries are regulated for proper disposal through recycling. Lead is no longer used in paint.

Lead is one of the basic elements and can not be destroyed or easily separated from the soil. PCBs are long lived compounds and are also difficult to separate from soils. Neither lead nor PCBs are highly mobile in the environment except through soil erosion. Both substances tend to bind tightly with soil. A cap and containment system as proposed is a highly effective means of eliminating soil erosion and remediating lead and PCB contaminated sites. The Superfund law was specifically written to address abandoned sites like this and hazardous substances such as lead and PCBs.

Free Lead Testing

The Delaware Department of Health and Social Services is offering free blood-lead testing to anyone, adult or child, in the community who is concerned about lead exposures. *---Again it is important to remember that EPA, ATSDR, DNREC and DHSS do not believe that anyone in the*

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surrounding community is at significant risk due to current or past exposure to contamination at or from the Site— Furthermore in the State of Delaware, all children must receive a lead screening test before enrolling in school. Delaware does this because children under the age of six are at an increased risk of lead poisoning because their bodies easily absorb ingested lead. Consequently, they are more sensitive than adults to its effects. Many older homes have lead paint inside and outside. All the children enrolled in Delaware schools are tested for lead.

Due to public concerns regarding the site, DHSS is offering free lead screening to anyone in the area concerned about lead levels as a public health service. *If you would like to receive a free lead screening for yourself or your children, please contact Delaware Department of Health and Social Services Lead Poisoning Prevention at (302) 995-8693 or (302) 995-8671. When you call, please mention this fact sheet.*

Off-site Contamination Concerns

Because the site borders the Brandywine River, it is expected that the off-site contamination will be limited to river sediments and along adjacent roadways. [Cleanup of significant concentrations of any off-site contamination will be incorporated into the site cleanup.] Most water runoff from the Site flows directly into the Brandywine Creek. *What does not flow directly into the Creek flows onto neighboring roadways and properties which drain into the Creek.* This off-site migration of contamination is being addressed by this cleanup. EPA has subsequently conducted soil sampling around the outside of the Site. This sampling and analyses effort has confirmed EPA's belief that off-site migration into the surrounding community is limited to the roadways immediately adjacent to the Site.

However, EPA is working with City and DNREC representatives to sample the areas immediately surrounding the site, including the Howard and Stubbs Schools, to identify any off-site contamination from the site. [Any off-site contamination will be scheduled for immediate cleanup.] This sampling effort not only includes the roadways, but it will include areas that may have been impacted by airborne contamination from the site, if any. EPA, in cooperation with DNREC and the City, will pursue off-site sampling to put to rest public concerns, *but there is no indication of contamination of nearby schools and residential neighborhoods and there is significant indication that there has been no such impact.* Recent sampling will address such concerns.

Public and Worker Safety During Cleanup

EPA is required to assure that cleanup actions are safe and do not, themselves, pose unnecessary risks to the public and site workers. In order to assure this, EPA has implemented dust control measures, including wetting soils with fire hoses when the weather is dry; continuous dust monitoring using "real-time" dust monitors; and, 8-hour air sampling and analyses for PCBs and lead on all four sides of the Site. This dust monitoring and sampling plan was developed with input and guidance of DNREC and City officials through the Unified Command. Furthermore, EPA has established on-site soil erosion control measures which *prevent current and future soil erosion due to rain and construction activity.*

Fish Consumption Advisory--Do Not Eat the Fish!!!

DHSS and DNREC issued a fish consumption advisory throughout the tidal areas of the Christina and Brandywine Rivers due to unsafe PCB concentrations in fish in these rivers. The State of Delaware recommends that no one eat the fish from these rivers. Warning signs have been placed in certain locations along the Brandywine and Christina Rivers for over two years. Some signs have been torn down by vandals and will be replaced. DHSS and DNREC will be working with City officials to place appropriate signs at appropriate locations along the two rivers.

Although site contamination has impacted river sediments in the immediate vicinity of the site, the site is only one of many historic PCB sources. ATSDR has concluded that sediment concentrations in the Brandywine Creek do not pose a *direct* human health threat, except through fish consumption. It is recommended that no one eat fish caught in the Christina River basin tidal area. However, there is no risk involved in "catch and release" sport fishing. **DO NOT EAT THE FISH.**

Protecting The Cap In The Future & Public Safety

The proposed cleanup actions at the site will continue to be protective of public and environmental health for as long as the cap and containment system remains intact. The cap and containment will be designed to withstand the weather extremes and normal recreational type usage. Monitoring techniques will be implemented to ensure the integrity of the cap. Unless the cap is deliberately disturbed, the site will remain safe and will not pose a threat to public health and the environment for any foreseeable future. A deed restriction will prohibit any such disturbance of the cap. Pursuant to Federal law, DNREC is responsible for operation and monitoring of the cap and containment system. Unless deliberately disturbed, the cap will require little or no maintenance and will continue to protect public health and the environment.

The City of Wilmington is exploring the possibilities of acquiring the site.

Unified Incident Command

The Unified Incident Command, is overseeing the site cleanup. The Unified Incident Command includes representatives from DNREC, EPA and the City of Wilmington who are all working together as team members in the site cleanup. The Unified Command provides opportunity for the City and DNREC to have direct and meaningful input into site activities. All representatives have the opportunity to influence the design and management of the cleanup. The Unified Command meets regularly and determines the course of important site activities, such as air monitoring, off-site sampling and soil stabilization and provides input and review of site engineering and design activities.

The Unified Command is responsible, along with EPA, for assuring effective, meaningful public involvement and communication. The Unified Command will continue to seek community input for all phases of the cleanup. Towards this end:

On Wednesday, June 24, 1998, the Unified Incident Command met with the Vandever Avenue Civic Association to provide an update and discuss future cleanup activities. Other meetings, including a meeting with the Northeast and Eastside/Southbridge Neighborhood Planning Councils on July 8, 1998, are planned.

For more information about the Diamond State Salvage Site, please contact one of the following EPA, DNREC and City representatives.

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